

**570.1 DESCRIPTION**

This specification provides for structure type options and sets forth the bidding requirements for projects which contain the item(s) Drainage Structure Site A, Drainage Structure Site B, etc. Plans with these item(s) will contain options for two or more structure types for each designated drainage structure site.

Typical structure types may include, cast-in-place box culvert, precast box culvert, precast concrete pipe, or precast concrete arch pipe; in any combination. A complete set of plan sheets and plan notes will be provided for each structure option at each drainage structure site.

**A. Bidding Instructions:** The Contractor or the subcontractor, that will actually construct a cast-in-place box culvert option or the cast-in-place portion of a precast box culvert option, shall be prequalified for Work Type Classification G or H, according to Section 2.1 of the Standard Specifications for Roads and Bridges.

The Proposal contains general bid schedule sheets where the bid item is Drainage Structure Site A, B, etc. The Contractor shall enter the lump sum amount for the option chosen, for each corresponding drainage structure site.

The plans contain item quantities for each option at each site. All necessary items and quantities for that option are listed; such as pounds (kg) of reinforcing steel, cubic yards (cubic meters) of concrete, linear feet (meter) of furnishing precast box culvert, etc.

The Proposal contains option bid schedule sheets for the items and quantities required for each drainage structure site for each option. For the one option selected by the Contractor at each drainage structure site, the Contractor shall fill in the unit bid price for each item on the option bid schedule sheet. If the Contractor fails to provide the unit bid prices for each item in the selected drainage structure site option as described above, the Proposal will be considered irregular and may be rejected according to Section 2.7 of the Standard Specifications for Roads and Bridges.

The sum of the bid amounts (quantity times unit price) on the option bid schedule sheet shall equal the lump sum price for the site and option entered into the general bid schedule under corresponding item(s).

When there are multiple drainage structure sites, the individual unit prices for any option item on the structures options bid schedule sheets will be allowed to vary from site to site. This will allow the unit prices to accurately reflect any variations in cost from one site to another for projects with multiple sites.

**B. Substitution After Award:** After award of the contract, if the Contractor desires to make a substitution in the structure type to be constructed, the Contractor shall submit a written request to make the substitution to the Engineer. The written request shall include the appropriate unit cost breakdown for the structure option as detailed in the structures option bid schedule sheets. The option unit prices shall be balanced and the sum of the itemized unit prices shall be equal to the lump sum price bid for the drainage structure site.

The substitution shall be at no change in cost to the Department. This type of substitution shall be limited to one of the actual options contained in the plans and the proposal.

All requests for substitution of a drainage structure, other than those specifically detailed in the plans as a structure option, will be considered only when submitted as a value engineering proposal, as per Section 4.7 of Standard Specifications. All of the Contractor and Department engineering costs related to the value engineering proposal shall be included in the cost analysis of the proposal. The Contractor engineering costs will not be paid in addition or separate to the value engineering proposal.

#### **570.2 MATERIALS**

The materials incorporated into each drainage structure type shall conform to all of the related plan and specification requirements.

#### **570.3 CONSTRUCTION REQUIREMENT**

The construction requirements for each drainage structure type shall conform to all of the related plan and specification requirements.

#### **570.4 METHOD OF MEASUREMENT**

The Drainage Structure Site A, B, etc. will not be measured. Source documentation and measurement for the option items that comprise the drainage structure site will be measured and documented according to the related plan and specification requirements.

The individual items and unit prices contained in the structures options bid schedule sheets will be used to adjust the lump sum contract unit price for each drainage structure when there are underruns or overruns.

#### **570.5 BASIS OF PAYMENT**

The Drainage Structure Site A, B, etc. will be paid for at the contract lump sum price. Payment will be full compensation for all excavation, materials, equipment, labor, and all incidentals required.

When a substitution is made after award, the Engineer will review the Contractor's request. The substitution will be approved when the written request has appropriately established the option unit prices according to the requirements.